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ABSTRACT

A description of the State of Arizona and its educational system is presented as a working paper in a final report by the Arizona Board of Regents' Task Force on Excellence, Efficiency and Competitiveness. Facts about the state include the following: indications are that the present growth in Arizona will continue for at least a decade more; growth has been handled by expanding the city limits; suburban growth in Phoenix and Tucson has been achieved without destroying the core city; the Arizona population is not very old, and birth rates in the state are high, especially for Hispanics and Indians; minorities in Arizona have not developed a substantial middle class; the Arizona economy is nicely diversified; and Arizona's minority populations are now 40% of the small children in Arizona. General conclusions are as follows: as school populations increase during the next decade, class sizes must not increase, and funding per student must not decline; higher education needs to be articulated with the public schools; youth poverty will increase, and the number of young people involved in Headstart-like programs may decline as a percentage of those eligible; the state needs to stimulate more small business starts on the part of its current citizens, especially minorities; and poverty levels in downtown Phoenix are increasing rapidly, and jobs are moving to the suburbs. Contains 20 references. (SM)

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ARIZONA: THE STATE AND ITS EDUCATIONAL SYSTEM

HAROLD L. HODGKINSON

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Thanks also to Michael Usdan, President of the Institute for Educational Leadership, and to Betty Hale, Vice President, for some excellent ideas. Louise Clarke, Chief Administrative Officer at IEL, has produced the report with efficiency and skill-on time and on budget! Tony Browder's excellent graphic designs have become an essential part of these publications, while the geniuses at FYI Inc. who developed SuperFile, the author's major information system, need special thanks.

However, errors of fact and interpretation remain the responsibility of the author.

Harold L. Hodgkinson
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COVER NOTE:

This "people map" of Arizona shows the two major metro areas in which live 75 percent of the state's population. This means that services are delivered to comparatively dense areas or very sparse ones in terms of population density. These two counties (Pima and Maricopa) will tend to dominate the state's political processes because of this rapid and sustained growth. Demographic maps like this one are increasingly used by planners, marketers of goods and services, politicians and even educators!

**ARIZONA:
THE STATE AND
ITS EDUCATIONAL SYSTEM**

HAROLD L. HODGKINSON
Senior Fellow, The Institute for
Educational Leadership

ARIZONA: THE STATE AND ITS EDUCATIONAL SYSTEM

There would be no Arizona without water and copper. The state has an abundance of the latter and almost none of the former. Indians discovered in approximately the 1300's that irrigation could allow for meaningful agriculture in what is now Arizona, the Salt River Dam demonstrated this anew for more modern times, and the Central Arizona Project (CAP) has completed the job in the 1980's. (Although most of the water is for agriculture, it is an "insurance policy" for further population growth as well.) The CAP is the last of the great federally financed Western water projects, as Senator Moynihan, who now chairs the Water Resources section under Public Works, has indicated in 1988. One reason: even though the *federal* cost per pint is very high, local water costs are so low that Arizona ranks 8th in per capita water consumption. In addition, heavy pumping of groundwater over many years has caused large fissures to develop in many parts of the state, a situation being dealt with by current policies of recharging a gallon of water back into the ground for every gallon taken out.

Through the years, Arizona has mined more than half of the copper ore dug in the U.S., and this was the mainstay of the economy through the first period of expansion during World War II and on to about 1975, when new forms of high and mid tech manufacturing increased rapidly in the Arizona economy.

A third major prerequisite for growth in the Arizona climate is air-conditioning, which made both Florida and Arizona livable after World War II. Driving through Phoenix on a 120 degree day in an air-conditioned car, looking at the air-conditioned houses with swimming pools in backyards, made possible by investing several billions of federal dollars in CAP, and realizing that a quart of water is *evaporated* for every quart used, one gets a sense of an artificial and vulnerable environment.

In terms of this fragile ecosystem, Arizona has had amazing growth rates since 1970. Most of the growth has occurred in the two counties of Pima and Maricopa, where 75 percent of its citizens live. (There are some long-term limits to growth—83 percent of Arizona land is owned by federal, state and Indian authorities, leaving only 17 percent for private development.)

Phoenix is now listed by most sources as one of the seven best places in the country for job growth, along with

Los Angeles, New York, Dallas, San Francisco, Washington and Atlanta. (Scottsdale, a haven for homes for the wealthy and conference centers for major American corporations, is now one of the fastest growing cities.) Phoenix is the prime example in America of a city whose growth has come through annexation. As a result, Phoenix has gone from a city of 17 square miles to over 375 square miles in 1988.

A major problem involves what happens to governments during annexation. During almost 120 separate annexations in Phoenix's history, many school boards have been retained. Thus, Phoenix operates through 28 individual school districts which are partially or totally in Phoenix's 375 square miles, a fairly unmanageable proposition. (An excellent 1983 report, *The Delivery System of Urban Education in Phoenix*, makes the point that if the city had not practiced boundary expansion, it would be a city of 28 mayors and 28 city councils!)

This enormous expansion of the city, by increasing its geography rather than increasing its density, has led to some major problems in the delivery of social services. In South Phoenix, a forty square mile area of poverty, delivery of services to the aged, sick and poor are very expensive on a unit cost basis, as it may be two miles between stops compared to Brooklyn with ten deliveries per block. Given the 375 square miles, and only plans for mass transit, the *car* density increases more than the people density. Ironically, air pollution in Phoenix is now so bad the city ranks tenth from the bottom in air quality, according to the Council on Environmental Quality. The swimming pools, lawn sprinklers and canals have, of course, increased air humidity a considerable amount, which allows pollutants to "hang." One wonders how long doctors will continue to recommend Phoenix as a haven for asthma sufferers! Add to that very high divorce and crime rates, and it is clear that there is much to do in Phoenix. Yet, it is also clear that, given the beautiful mountains, good jobs and lack of crowding, many more people will move to Phoenix in the next decade.

Tucson is smaller, cooler, and has maintained more of a Southwestern flavor than Phoenix. However, the mix of manufacturing and high technology is very parallel to that of Phoenix, and both are growing, Phoenix more rapidly than Tucson. Both cities have attracted a number

ARIZONA PROFILE

1980 Population	29th	2,718,000
1985 Population	27th	3,187,000
1987 Population		3,368,417*
1980 Black Population	29th	74,000 2.8%
1980 Hispanic Population	8th	440,000 16.2%
American Indian Population	3rd	146,461 5.4%
Asian Population		22,888 1.0%
Foreign Born	12th	6.0%
Born in Another State	4th	67%
Population Over 65 Years of Age, 1980	23rd	11.3%
Population Over 65 Years of Age, 1985	20th	12.3%
Under 18	19th	29.1%
Under 18, 1985	18th	27.5%
Median Age, 1980	32nd	29.2 years
Median Age, 1987		34.5 years
Women in the Labor Force	39th	47.8%
College Graduates	19th	17.4%
Birth Rate	9th	17.9 births per 1,000
Voted in 1984 Election	46th	45.5% of eligible voters
Married Couple Households	26th	62.2%
Median Household Income	27th	\$16,448
Median Household Income, 1987		\$29,473
People per Square Mile		23.9. (U.S. 64.0)
Increase in Personal Income, 1980-85	5th	+ 61% (U.S. + 47%)
Housing Value	13th	\$61,900

*Data from C.A.C.I., 1987. All others 1980 unless otherwise noted.

of major high tech corporations, and both have excellent universities within the metro areas. Phoenix has Maricopa Community College, which supplies a vast number of programs and services and has a national reputation for excellence, as does Pima. Tucson has not developed as quickly as Phoenix has, and thus may have an easier time managing future growth, although infrastructure development will be difficult in both cities, especially mass transit. Also, like Santa Fe, Tucson represents "the real Southwest," and may increasingly attract tourists looking for the genuine article.

Although there is Sun City, most in-migrants to Arizona have been young, well-educated, and just moving into their peak earning years. The state is not becoming one vast retirement colony as some have suggested. However, poverty, illness and social pathology are not hard to find in the only state that refused to participate in Medicaid. Even Arizona's conservative politics have changed to a more balanced view of state and local responsibility for its citizens, mainly under the regime of former Governor Bruce Babbitt, a "home-grown" Arizona politician who had taken a swipe at the state's well organized crime

syndicates during his days as Attorney General. As this is written, however, the state's gubernatorial function is in great confusion, as Acting Governor Rose Mofford has taken over from Evan Mecham, who now faces a State Senate impeachment trial, a criminal prosecution and a recall election in May, 1988. Seldom is a political outcome so totally unpredictable.

One other factor makes Arizona unusual—20 million acres of the state are "owned" by the 13 Indian tribes living there. About 155,000 Indians (5 percent of the state's population) participate in the richly divergent tribal cultures, from Navajo to Hopi. Arizona ranks behind only California and Oklahoma in the numbers of Native Americans. They live mainly on reservations—only about 20,000 live in Phoenix or Tucson, while 70 percent of Mexican Americans live in those two metro areas. Blacks represent about 3 percent of the state's population while Hispanics are about 16 percent. With this as background, let's review the basic numbers seen on page 2.

This is clearly a high growth state, even though the growth is overwhelmingly in only two counties. The state's density of 23 people per square mile suggests infinite possibilities for growth, but this is a very misleading average. The density *range* in Arizona is vast, from 4 people per square mile in Apache, Coconino, Graham and Mohave Counties to 165 per square mile in Maricopa as of 1980. The low density counties are, of course, those in which land is not readily available for private purchase, being owned by state, federal or Indian authorities. Pima County,

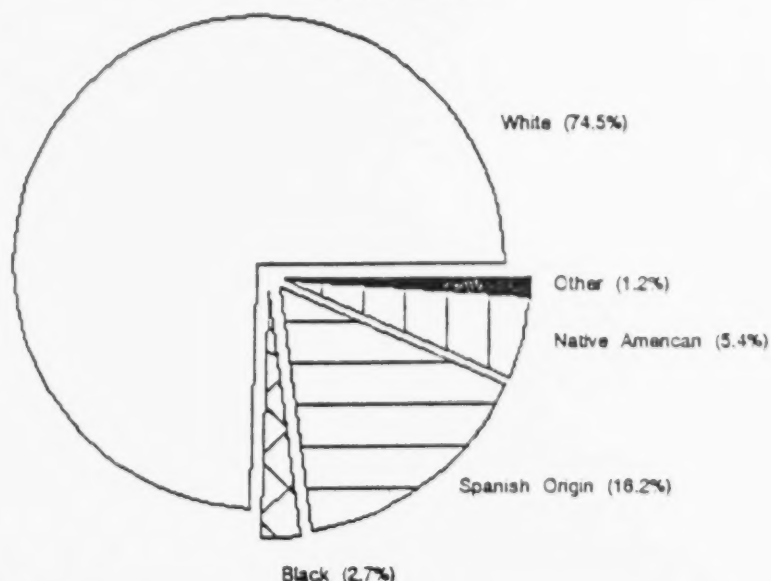
the other major growth center, has a density of 57 people per square mile and should be better able to handle growth than Maricopa, in this sense. (Before you think Maricopa's the ultimate, remember that New Jersey has an average density of 1,000 people per square mile, the same as Japan.)

The state's ethnic mix is also unusual, with small Asian and black populations, and large Hispanic and Native American populations, totalling about 25 percent of Arizona's people. However, because whites in Arizona have a lower fertility level than Hispanics or Native Americans, Arizona children are about 40 percent non-Anglo, as the Graphs A and B indicate.

One of the central claims of demographics is that the children of today are the adults of tomorrow. That being the case, Arizona needs to consider a future in which 40 percent of the adult population will be non-Anglo. That future arrives (depending on in-migration) in the year 2000. Many Arizonans are from another nation—mostly Mexico—and most are from another state.

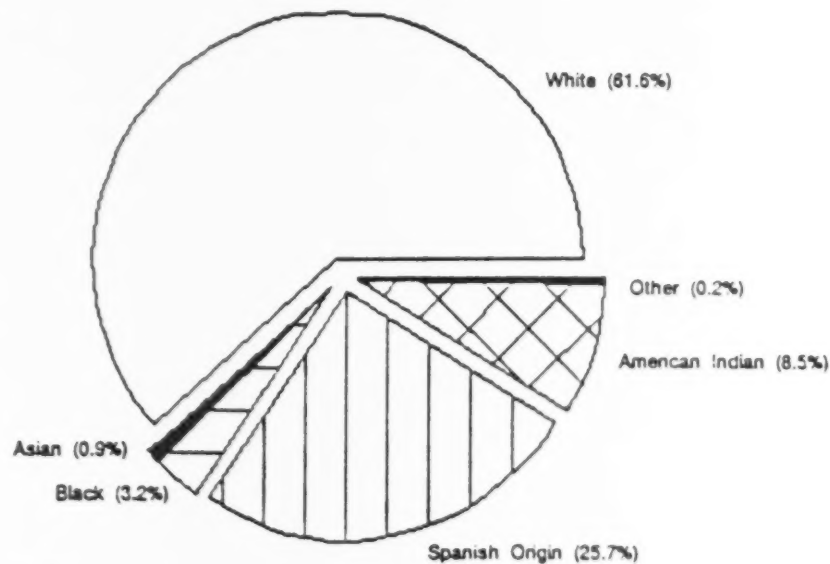
By age, the state has a relatively small but increasing population over 65, and a large population under 18, due partially to the higher fertility rates among Hispanics and Native Americans. The population contains a large number of college graduates, and newcomers to the state continue that pattern. (On the other hand, a very high percentage of youth drop out of high school, making Arizona high on well and poorly educated people.) One income problem is the rather small percentage of working women,

GRAPH A
POPULATION DISTRIBUTION BY ETHNICITY
Arizona—1980



From Bartram and Gebel, *Arizona Educational Scan*, Arizona State University.

GRAPH B
ETHNIC COMPOSITION OF THE 0-4
AGE GROUP IN ARIZONA
1980



From Bartram and Gebel, *op. cit.*

it being virtually impossible to live a middle-class life these days on only one salary.

It is also interesting that with all the college graduates in the state, and higher percentages of high school drop-outs, a very small number of voters turned out for the last national elections. Are Arizonans focused inward, with more interest in local and state concerns than national issues? It's certainly a possibility. One of the things in Arizona's favor is the relatively low cost of housing, at least compared to other areas which offer good scenery, jobs and climate. That should speak favorably for the state in its effort to win the supercollider project—at this writing, Arizona is one of seven finalists to build the \$4.2 billion particle smasher. However, the current gubernatorial confusion will work in the other direction, as will the environmental impact of a project of this magnitude.

Certainly a key element in this state is population movement. Although we normally assume that people only move *to* Arizona, that proves to be incorrect:

ARIZONA POPULATION MOVEMENT
1975-1980

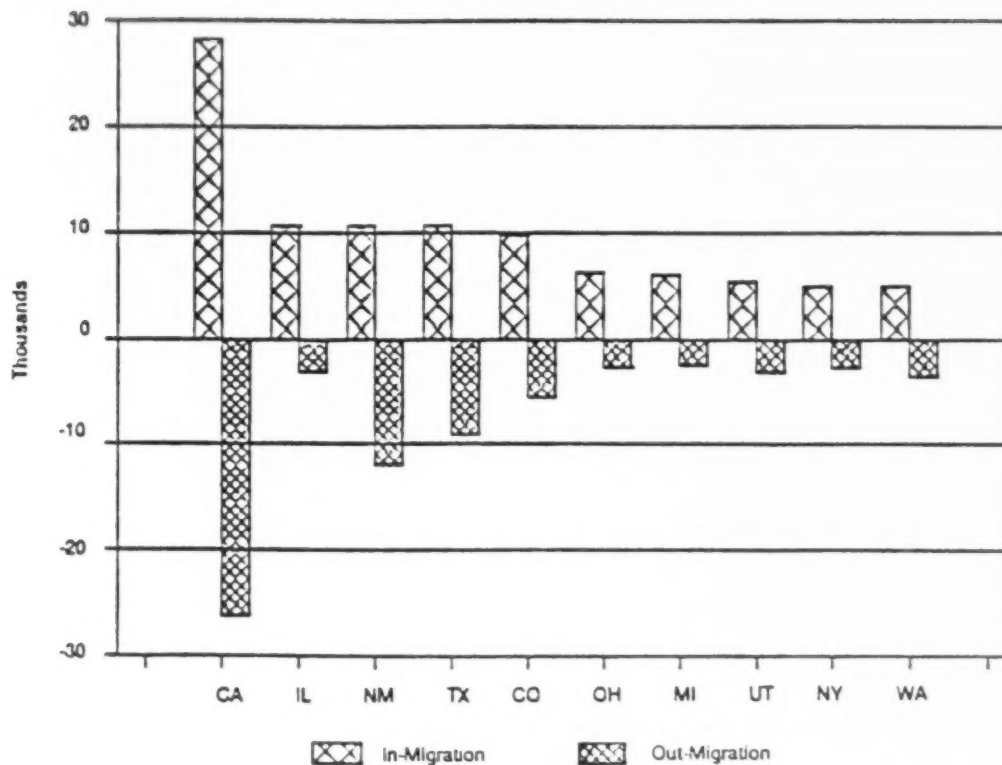
	ALL	WHITE	BLACK	HISPANIC
IN	650,063	595,751	15,560	45,796
OUT	352,680	313,791	11,744	29,440
NET	297,383	281,960	3,816	16,356

It should be clear that for every two people who move to Arizona, one person moves out. It is also clear that the overwhelming number of in-migrants are Anglo, and that a surprisingly large number of Hispanics move *out* of the state when compared to other states. Data on Phoenix in-migrants in 1983 suggested that they are young (median age 27.9 years), affluent (their houses were \$12,000 over the Phoenix average), 32 percent had attended college, 62 percent were married, 41 percent had children—an ideal profile in terms of family-oriented people just moving into their peak earning years.

We can also tell from which states these in-migrants come (see Graph C, page five). The largest action, both in and out, is (in order) California, Illinois, New Mexico, Texas, Colorado, Ohio, Michigan, Utah, New York and Washington State, at least in 1984-85. Although 28,000 Californians moved to Arizona, 26,000 left Arizona for California, for a rather small "net" of 2,000. The only discrepancy in the "top five" is Illinois—11,000 Illinois citizens moved *to* Arizona, but only 2,000 moved from Arizona to Illinois. But in the "bottom five," Colorado, Ohio, Michigan and Utah all sent more people to Arizona than vice versa. Thus, the "net" represents more people in Arizona from Ohio, Illinois, Michigan, Utah and Colorado than from California, New Mexico and Texas.

One unique thing about Arizona is the degree to which suburbs look like the core city. A slice of Shaker Heights, Ohio will *not* look like a slice of downtown Cleveland,

GRAPH C
ARIZONA MIGRATION FLOWS FOR THE
TOP TEN STATES
1984-1985



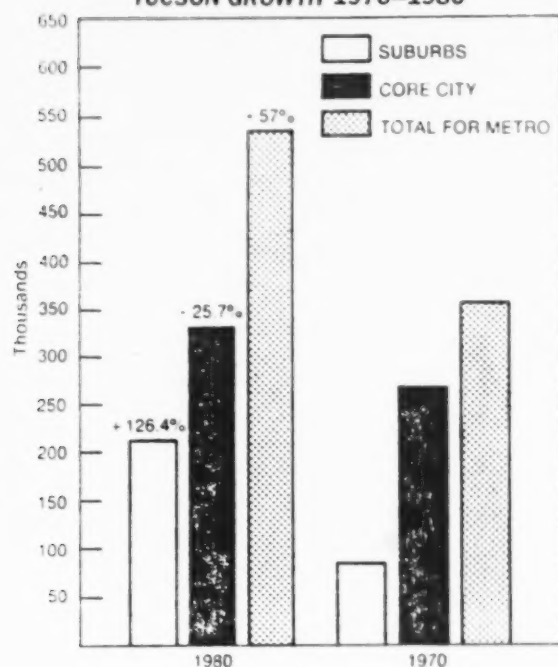
From Bartram and Gebel, *op. cit.*

whereas a slice of the city of Phoenix will look a great deal like a slice of suburban Phoenix. In the rest of the country (minus Florida), increasing suburban populations have meant declining city populations. In addition, jobs have moved to the suburbs as well—in Chicago, more than 50 percent of all commuters are going from a suburban home to a suburban job. The core cities of Phoenix and Tucson do not have this worry to the same degree, as the city has grown proportionately with the suburbs. (See chart on next page.)

Phoenix has also expanded suburbia without sucking the life out of the core city. However, in both metro areas, poverty is concentrated within the city limits (but remember, that's 375 square miles for Phoenix!). South Phoenix represents this new kind of low-density poverty area. Among the twenty plus school districts that operate within the City of Phoenix, there are striking differences in the amount spent per child, making consistent improvement throughout Phoenix public schools very difficult to achieve, as we shall see in a minute. Still, compared to other cities, the rebuilding job is easier in Phoenix and Tucson.

Phoenix is now the tenth largest city, but only the 22nd largest metropolitan area, due largely to the annexation process. In terms of Hispanic populations, however, Phoenix is the tenth largest city (116,000 Hispanic residents) but the thirteenth largest metro area, with about 200,000 Hispanics. This means that about 80,000 Hispanics live in "suburban" Phoenix, a rather large percentage compared to other cities. One of the good things about Florida and Arizona cities is that you can't tell where the city stops and the suburbs begin. Minorities, especially middle-income minorities, have many more housing alternatives in Arizona than in Chicago or Detroit, areas with very clearly defined suburbs and low percentages of minority residents. (On the other hand, moving to the suburbs may not increase one's social status if the suburbs are very like the city.) A key question here is the availability of well-paying jobs in various parts of the metro areas of Phoenix and Tucson, for Anglos and minorities as well. In the profile on page six, the first column indicates the percentage of the Arizona workforce employed in that industry, the second indicates the importance of

TUCSON GROWTH 1970-1980



that area to the state's total economy, using 100 as the U.S. average.

This is the healthy profile of a nicely diversified economy. The only vulnerability is in the first category, with the heavy investment in mining which must now be partially converted to other areas. Still, this conversion will be easier for Arizona than the automobile conversion has been for Michigan, Ohio and Indiana. Across the high end of the service economy, the state does very well, as it does with construction, which also pays well. The 1987 data may show an upturn for manufacturing, although Honeywell, Motorola, Sperry-Rand, and Hughes Aircraft have not added many new positions lately—the name of the “high tech” manufacturing game is *jobless growth*. (In addition, the *average* worker in a high tech manufacturing firm is a stock runner, shipper, clerk, secretary, cashier or security guard. In Silicon Valley, only 20 percent of the workforce has any advanced technical or scientific training.) The problem of a “declining middle” in the Arizona workforce is real, if one looks at the jobs people *actually do* at present. (See chart on next page.)

If we look at the future, Arizona will create 12 new jobs for cashiers for every *one* job for computer programmers. The consequences of those numbers for the state's tax base, for the educational system, and quality of life, are vital. Arizona's past has been unplanned worship of the great god, growth. In the future, Arizona will have to *plan*

ARIZONA BUSINESSES AND JOBS

	% OF WORKERS	INDEX
AGRICULTURE, MINING, FORESTRY, FISHING	5.3	133
CONSTRUCTION	8.1	137
MANUFACTURING	14.5	65
TRANSPORTATION, COMMUNICATIONS	6.6	90
RETAIL, WHOLESALE TRADES	22	108
FINANCE, INSURANCE, REAL ESTATE	6.9	115
BUSINESS, REPAIR, PERSONAL SERVICE	9.7	115
PROFESSIONAL SERVICES	20.1	99
PUBLIC ADMINISTRATION	6.6	125

Jobs in Arizona*

Chemists	700
Dentists	1,300
Computer programmers	3,700
Finance managers	4,000
Lawyers	5,000
Doctors	5,400
Janitors	32,000
Secretaries	41,500
Fast food workers	58,900

*Occupational Outlook Quarterly, Bureau of Labor Statistics, January, 1987.

its growth far more carefully to assure equitable access to a high quality of life for all its citizens. We in education love to talk about the best educational program for the future computer programmer—but what is the best education for the future cashier? The question seldom comes up.

Although no one knows exactly where new jobs come from, the research of David Birch and others supports the importance of new small businesses as *the* single best source of new jobs. (The Fortune 500 do not add jobs to the U.S. economy, they are in the business of *eliminating* jobs.) Each year, about one million new businesses are created in the U.S., to the envy of the rest of the world. Of this pool, about five percent, according to Birch, will suddenly expand and begin to generate large numbers of new jobs. The largest number of these new businesses are in the service sector, broadly defined as non-manufacturing, non-agriculture. Neither Phoenix nor Tucson are leaders in small business starts, particularly *minority-owned* small businesses. Unless some action is taken, Arizona will continue to develop twelve jobs for cashiers for every

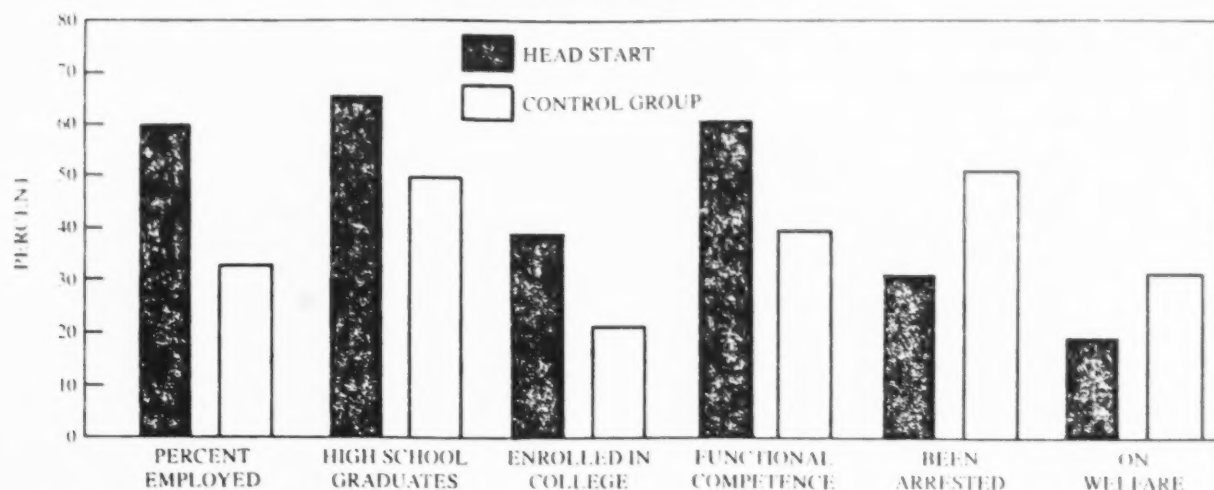
job for a computer programmer, and will be behind in developing middle-class minorities.

An additional problem concerns the fact that Hispanics in Arizona have usually performed the onerous tasks that had to be done but don't pay well and have few opportunities for advancement (hotel maid, cashiering, retail sales, garbage collection, janitor, waiter/waitress, night watchman). Hispanics' recent rise in political clout in Arizona suggests that the future may be different, and that, via the educational system, more minorities will move into middle income jobs, breaking the stereotype of the "servant class." The development and maintenance of middle-class minority populations would contribute greatly to the social and economic benefit of *all* Arizonans.

A final comment about the state's demographics. Sixty-seven percent of the state's population moved in from another state; 6 percent from another country (mainly Mexico), leaving only 27 percent of the state's residents who were born there. This kind of transiency is exceeded only by Nevada (about 20 percent of residents born in the state), and in both states is responsible for very high crime rates, and perhaps for the low national election turn-outs. (Nevada is now number one in terms of murder per 100,000 people.)

Arizona was 2nd in overall crime rates per 100,000 in 1985, 16th in murder with 10.3 cases per 100,000 people, 9th in rape with 45 cases per 100,000, and 16th in robbery with 193 per 100,000. The state is now 10th in prisoners (175 per 100,000 in 1980, 267 per 100,000 in 1985), a major financial drain on a state that is strapped for income for social services anyway. A prisoner costs about \$22,000 a year to maintain, which taken times 8,500 total prisoners gives the large total of 187 million dollars a year just to maintain the prisoner popu-

HEAD START CHILDREN AT AGE 19



From High Scope Foundation, Ypsilanti, Michigan, 1984

lation. Although Arizona will have to build some new schools in the future, it seems likely that it will build more jails, given the sharp increase in criminality. During the last decade, America increased jail populations more than almost any other human factor.

Certainly education is involved in this trade-off, as 80 percent of prisoners in the country are high school dropouts. This does not mean that if we graduate everyone from high school we could close all the jails, but it *does* mean that if quality of the educational system declines further, prison populations are likely to continue to increase. One prisoner for one year costs as much as eight children in Head Start-type early childhood programs, a program with *demonstrable* ability to deter youngsters from a life of crime, get them through school and into a good job. (See chart on page 8.)

In Arizona, there are about four times as many Head Start eligible kids as there are places in programs. It would seem that the state will have a return on this *lack* of investment, also.

Having now taken a snapshot of this fast-moving state, let's move on to look at the educational system.

ARIZONA'S EDUCATIONAL SYSTEM

The first thing we notice is that Arizona's schools have increased in enrollment, but not in proportion to the state's total growth:

ARIZONA SCHOOL ENROLLMENT, SELECTED YEARS

	1970	1982	1985
ALL	440,000	510,000	596,200
Grades K-8	314,000	359,000	420,600
Grades 9-12	126,000	151,000	175,600

While the state grew about 88 percent from 1970-1985, the schools grew by only 35 percent. While minority students are now about 33 percent of school children, they are 40 percent of children age 0-4 at the present time, due to the higher fertility rate among Native Americans and Hispanics. (On the other hand, Phoenix Union High School District is now over 50% minority enrollment, but that is in contrast to 76% minority enrollment as an average for America's 20 largest cities.) During the 1970-1982 period, American schools were losing 13 percent in enrollment. During this period, Arizona (and Florida) were *adding* students. It was not a particularly good time for passing school bond issues, yet Arizona managed to increase school capacity almost as quickly as it increased *revenue* capacity, allowing for "pay as you go" school increases. In

Phoenix, however, the increases in kids brought major increases in complexity.

All indications are for a proportionate increase in school enrollments in Arizona's future, with one exception: the Phoenix Union High School District and "family" of 13 feeder school districts will continue to *lose* students, while the suburban districts around Phoenix will continue to gain, as suburbs show more rapid (and economically wealthy) growth in population. This will mean that schools will increasingly be in one place, children in another. Poverty will increase in Phoenix "city" schools rather than in the suburbs. There will probably be more schools that become segregated due to population movement. This rather gloomy prediction could be upset if the rapidly building coalition of leaders from Phoenix Union High School District, Arizona State University, Phoenix businesses and Mayor Goddard becomes effective in dealing with these issues in a *comprehensive* way. Phoenix need not become what many of our largest cities are today.

Although these issues will also exist in Tucson, the problems will be less, due to smaller enrollments and a slightly more comprehensible system of school districts than is true in Phoenix. (Although they enroll small percentages of students, a word needs to be added about the number of elementary districts in Arizona with very *small* enrollments and low teacher salaries and dollars spent per student. Rural poverty is a problem for some of Arizona's children, on the reservation and off. Within Phoenix schools, assessed valuation per student ranges from \$10,031 to \$346,125 in two different districts.)

There are some things about the Arizona school profile on page 9 that leap out at one. First, the increase in Arizona students was handled by reducing the amount spent per child. A real danger will be making classes larger. California has worked itself into a terrible hole by increasing class size to 23, the next largest in the nation. Arizona is not in this drastic a fix, but the continuous increase in new students will require new efforts to keep class sizes down and to provide equitable funding levels for *each* child. The next ten years may represent a more formidable challenge in meeting the needs of new students than the last ten.

Second, considering the large number of college graduates and middle-income people in the state, the retention rate to high school graduation is unimpressive, to say the least. (Part of this may be due to an unusual state law

ARIZONA SCHOOL PROFILE

	1973-74	1985-86
Per-pupil expenditure	\$ 1,057 (U.S. \$ 1,147)	\$ 2,829 (U.S. \$ 3,677)
Teacher Salaries	\$10,807 (U.S. \$11,690)	\$24,680 (U.S. \$25,257)
Funding: Federal	8.2%	10.0%
State	38.6%	53.3%
Local	53.2%	36.7%
Percent of 1980 ninth graders graduating in 1984:	69.8% (40th)	
Per capita income, 1984	\$11,841 (U.S. \$12,789)	
Student-teacher ratio, 1985	19.7 to 1 (U.S. 18.3 to 1)	
1980 Private school enrollment	40,261	
Catholic schools	18,306	
Other private schools	21,955	
Children in poverty (age 5-17)	15.8% (U.S. 15.3%)	
Pre-school children in poverty	21.2%	
Handicapped students, 1984	9.8% (U.S. 11.0%)	
Gifted students, 1984	3.9% (U.S. 3.2%)	
Bilingual students, 1984	2.3% (U.S. 2.9%)	
Minority students, 1984	37.7%	
Black	3.8%	
Hispanic	21.5%	
Asian	1.1%	
Native American	11.3%	

allowing students to leave school at their 16th birthday or after completing the 10th grade. It is hard to consider this law to be in the state's long-term best interest, in that it functions to *increase* the high school dropout rate, a situation from which no one benefits.) In addition, the increasing poverty rates among Arizona's very young children suggest a further increase in school dropouts unless specific action is taken.

A third major change is in public school funding, a majority of which now comes from state sources and only a minority from local revenues. In this regard, Arizona is simply mirroring a national trend. However, in a state with great differences among school districts, state policies will have to be mediated through some series of local filters. The Golden Rule is still in operation—he who has the gold makes the rule. It is unrealistic to expect state lawmakers and governors to provide the money for schools but leave the policymaking to local leaders. In a state like Arizona, there may be increasing stress between state and local leaders on education issues in the future, and the current gubernatorial confusion could only make matters worse. In Arizona, the most important question may be—who decides who decides?

The percentage of poverty among children in Arizona seems much too high for such a favored state. In addition, poverty is increasingly concentrated in cities and rural areas, while suburbs are increasing in upper, middle-class income levels. While minorities have moved to the suburbs (Hispanics, at any rate), it is not clear whether the job structure in the state provides for an increasing number of middle-income jobs that are held by minorities, nor does the educational system seem bent on accomplishing this task. Increasing the poverty levels of minority youth will be in no one's self-interest. The creation and support of middle class minority populations will be a major factor in the state's future potential, and the educational system will have to be a key player, both schools and higher education.

While private schools enroll about 13 percent of America's youth nationally, they only enroll 6 percent of Arizona's youth. (This seems to be characteristic of the Southwest as a whole, not just Arizona). Although the data cannot be tracked in Arizona, it is interesting that the schools who are members of the National Association of Independent Schools are now enrolling as many Asian students as they are blacks, leaving Hispanics somewhere

in left field. Another interesting factor is the very low number of Arizona students in bilingual classes. One explanation is that most of the bilingual program dollars have come from the federal government, a funding source Arizona has been dedicated to *not* using. Another speculation might involve the attitudes of many Arizonans who may want *all* instruction in English and none in Spanish, Hopi or Navajo.

Given the state's history of total commitment to growth and laissez-faire capitalism, it is understandable that schools were not a primary priority in Arizona's past. However, as one looks at Arizona's *future*, it becomes increasingly clear that an educated citizenry and workforce will make or break the state. If minority populations remain outside of the middle class in large numbers, the state's future will be in major

jeopardy, as no state can survive long if 40 percent of a generation (the current minority proportion of young children in Arizona) are unable to fulfill their potential. Equity is not a matter of liberal rhetoric but a *pragmatic necessity*. Investment in jails at \$24,000 per prisoner per year is a very major investment, the return on which is very low. The return on the education dollar is incomparably higher. Failing to make the educational investment will mean further increases in the prisoner investment. (Eighty percent of prisoners are high school drop-outs).

Oklahoma currently graduates 80 percent of its youth to Arizona's 69 percent. Could Arizona move its retention level up to that of Oklahoma? Definitely. It would not take a huge amount of money, but it would require the state to develop a *youth policy*, something it does not currently have, as well as a strategy for implementing that policy. The important thing to remember is that Arizona education is a direct product of the state's economic, social,

ARIZONA HIGHER EDUCATION

Number of institutions (1985-86)	31	
Public institutions	19	
Private institutions	12	
Universities	3	
Four year institutions	10	
Two year institutions	19	
	1970	1985
Total enrollment	109,619	216,854
Public enrollment	107,315	202,036
Private enrollment	2,304	14,818
Full-time enrollment	*	95,642
Part-time enrollment	*	121,212
Minority enrollment, 1984	34,666 (17% of all enrollments)	
Black	5,952	
Hispanic	18,028	
Asian	3,672	
Native American	7,014	
Foreign	4,957	
Average faculty salary, 1985-86	\$34,116 (U.S. \$32,392)	
Bachelor's degrees awarded, 1984	11,370	
Arizona students out of state for college, 1984	4,674	
Others migrating to Arizona for college, 1984	14,478	
Net gain, 1984	9,804	
Public higher education appropriations per FTE student, 1986	\$ 3,398 (rank 31st)	
Appropriations for current operations, 1986	\$388,700,000 (public)	

political and demographic context. Understanding this context is a necessary prerequisite for understanding how the educational system functions.

ARIZONA HIGHER EDUCATION

It goes without saying that Arizona higher education can be no better than Arizona's schools. Like the schools, higher education is also a creature of the state's economy, politics, social norms and demography. (See chart on p. 10.)

Although Arizona public institutions are dominant in enrollment, it is worth pointing out that independent institutions tripled their enrollments during the period. Public institutions doubled enrollments, a much larger increase than the public schools. Compared with national figures, a far higher percentage of Arizona students are part-time, suggesting that serious attention is being paid to the needs of older students who need additional education for occupational advancement. In addition, the minority percentage is commendable, given that about 20 percent of the high school graduates are minority in Arizona. However, in 1986, 78,594 minorities were enrolled in the state university system, and 124,851 were enrolled in the community college system. The Arizona universities could clearly do better. Just as Arizona attracts tourists, it also attracts students from other states! The combination of scenery, climate and the perceived quality of the three state universities is a compelling one.

Although funding for higher education is not even by

enrollment, especially at the three universities, it has avoided the enormous swings up and down that have characterized the California community college system as well as others. Public institution faculty have salaries a little above the national average, just as Arizona public school teachers are a little below the U.S. average. Although it is inferential, it would seem that the awarding of 10,000 bachelor's degrees by the state universities in 1985-86, and 5,000 associate degrees in the same year is to suggest a rather high attrition rate in both sectors. (Nationally, about 46 percent of undergraduates receive a B.A. degree "on time," four years after they begin. There are few indications of what "normal progress toward the degree" means in the community college context of 40 year-old students who are mid-career executives with families, going to college part-time.)

In general, the higher education system seems to be fairly well articulated with the public schools, and to some extent with the state's needs for job training and retraining. The three universities and the community colleges have good reputations, both within and without the state. As the state's population continues to grow, it will bring in many people who already possess a college degree but who will need additional education for new job tasks, as well as many people who need to complete a degree begun elsewhere. Adult education will continue to be a "growth industry" in Arizona, although there may be some tension as to who will offer such instruction. Change in the Arizona higher education system can be evolutionary, as things seem to be functioning well and the state's needs are being met.

ARIZONA—GENERAL CONCLUSIONS

Growth has been *the* name of Arizona's game. Because the people moving in have been young, well-educated and well-paid, the state has been able to increase its economic numbers based on its in-migrants, overlooking the fact that for many minorities and poor born in the state, things were getting worse. Today there seems to be a shift toward a broader set of concerns for the quality of life of all Arizonans, based on pragmatic judgments, not liberal economic or political theory. In addition, Arizona (when it finally gets a new governor) may be ready to do more strategic thinking and planning to *guide* change rather than to sit back and watch. To a large degree, Arizona and Florida are the only growth states in which the *rates* of growth are likely to continue at present levels, as Texas and California decline in growth rates. Although the ecology of Arizona is extremely fragile, there seems to be a new sense of the importance of stabilizing the ecological and human infrastructures.

A number of issues remain before the state:

1. So far, suburban growth has not been purchased by sucking the life out of the core city. However, poverty levels in "downtown" Phoenix are now increasing rapidly, jobs are moving to the suburbs, and the strategy of annexation will soon reach its own limits to growth. One has to begin thinking of the future of the Phoenix *metro area*, and Tucson to a lesser extent. Scottsdale represents a different problem—few lower income people live there, yet there is much work to do—cleaning hotel rooms, cashiering, janitorial, etc. But many of the people who do this work cannot live in the community in which they work. For the state, an increasing problem concerns low-income people travelling long distances to work in high income communities to which they can never belong.
2. The state also needs to stimulate more small business starts on the part of its current citizens, especially minorities. The decline in the middle of the Arizona work force is real, with increasing numbers of jobs on the high and low income sides. Considering the state's rank of *fourth* in the percentage of its citizens who are Hispanic, it needs to do much more in the development of minority middle classes. (Here Florida is far ahead of Arizona, with Miami

leading the *nation* in the percentage of blacks and Hispanics who are middle class in income, and large number of minority owned businesses throughout the state).

3. Youth poverty will increase, and the number of young people involved in Head Start-like programs may decline as a percentage of those eligible. More youth entering school will be "at risk," which could result in even further reductions in the numbers of young people who graduate from high school. If this happens, *everyone's interests in Arizona* will be affected negatively. Native Americans and Hispanics, the two groups increasing as a percentage of all youth, have the lowest rates of high school graduation. Unless action is taken, the mathematics will work out inexorably.
4. Higher education needs to be articulated with the public schools. At the moment, some tentative first steps have been made, but mainly through the schools of education at the universities, and through community colleges. It is now time to get the "hard core" liberal arts faculty involved in the process of producing their future students through the public schools. (Higher education in Arizona can be no better than Arizona's schools.) At the moment, Arizona's business leaders seem to have a better understanding of this obvious fact than some of the professoriate.
5. As school populations increase during the next decade, care must be taken that class sizes not increase, and that funding per student does not decline. Also, the schools and the legislature need a *youth policy* that can guide action in this area, particularly in a state with an increasing percentage of youth who come from non-Anglo backgrounds. Minority populations increase less rapidly in Arizona than in California, Texas or Florida, and much can be learned by watching how those states deal with providing an effective education for *all* young people. A particular Arizona issue concerns the great richness of the many Indian cultures in the state, and how (if at all) this diversity can be protected while all students get an education that will help them fulfill their potential.

SOURCES USED IN PREPARING THIS REPORT
Standard set from Connecticut—Florida plus:

1. *Minorities in Higher Education* (Washington, D.C.: The American Council on Education, 1986).
2. *The Education of Hispanics: Selected Statistics* (Washington, D.C.: The National Council of La Raza, 1986).
3. *Education Vital Signs* (Alexandria, VA.: The National School Boards Association, 1986).
4. *The Condition of Education, 1987* (Washington, D.C.: National Center for Educational Statistics, 1987).
5. *All One System*, Harold L. Hodgkinson (Washington, D.C.: The Institute for Educational Leadership, Inc., 1985).
6. *Higher Education: Diversity is Our Middle Name*, Harold L. Hodgkinson (Washington, D.C.: National Institute for Independent Colleges and Universities, 1986).
7. *The Changing Profile of Mexican America* (Los Angeles, CA: The Tomas Rivera Center, 1985).
8. *State Demographics*, by the Editors of *American Demographics* (Homewood, IL: Dow Jones-Irwin, 1983).
9. *Digest of Educational Statistics, 1987* (Washington, D.C.: National Center for Educational Statistics, 1987).
10. *California: The State and Its Educational System, and Texas: The State and Its Educational System*, Harold L. Hodgkinson (Washington, D.C.: Institute for Educational Leadership, Inc., 1986). Plus reports on Delaware, Indiana, Kentucky, Michigan, New York, and Ohio.
11. *1986-87 Fact Book on Higher Education* (Washington, D.C.: The American Council on Education, 1987).
12. *Statistical Abstract of the United States, 1987* (Washington, D.C.: U.S. Government Printing Office, 1987).
13. *Occupational Outlook Quarterly* (Washington, D.C.: U.S. Department of Labor, 1986).
14. *Population Profile of the United States* (Washington, D.C.: Bureau of the Census, No. 150, pp. 23, April, 1987).
15. *Book of America*, Neal Peirce and Jerry Hagstrom (New York, NY: Warner Books, 1984).
16. *Phoenix—An Urban City*, Paul W. Briggs, Arizona State University, September, 1987.
17. *School Management Information Data*, Public School Districts, State of Arizona, 1987, Arizona State University, 1987.
18. *School Management Information Data*, Public School Districts, State of Arizona, 1983, Arizona State University, 1983.
19. *The Delivery of Urban Education in Phoenix*, (Briggs, Mangini and Hanauer, Study Team), Arizona State University, Fall, 1983.
20. *Arizona Environmental Scan*, Bartram, J. and Gebel, M. (February, 1988), Tempe: Arizona State University, Office of Institutional Analysis.

ARIZONA: SUMMARY OF MAJOR POINTS

1. Growth has been the name of the Arizona game, and every indication is that it will continue for at least a decade longer. Like Florida, growth in Arizona has increased the fragility of human and natural systems. Most of the Arizona growth has been concentrated in Pima and Maricopa Counties, where about three-quarters of the population reside.
2. Growth, especially in Phoenix, has been dealt with simply by expanding the city limits from 17 to 375 square miles through a process known as annexation. Thus the city grew, but densities of people per square mile stayed about the same. Today, Phoenix has some areas of great poverty and very low density, which means that services are expensive to provide when it's two miles between stops.
3. Suburban growth in both Phoenix and Tucson has been achieved without destroying the core city, which has grown along with the suburbs. That process is now slowing down, and poverty is increasing in the city limits of both Phoenix and Tucson but not in the suburbs. There are limits to growth, in that over seventy percent of Arizona's land is owned by governments—U.S., state and Indian.
4. Contrary to expectations, the Arizona population is not very old, and birth rates in the state are high, particularly for Hispanic and Indian residents who form the largest minority groups in the state, with smaller black and Asian populations. The people are either very well-educated (high percentage of college graduates) or poorly educated (high percentage of high school kids who drop out). The majority of Arizonans were born in another state, contributing to a sense of transiency. Crime rates are also very high in Arizona, and the budget for prisoners is likely to expand faster than the budget for new schools.
5. Minorities in Arizona have not developed substantial middle classes, as they have in Florida and California, as measured by small business starts, suburban housing or middle-income jobs. The public schools, the higher education system and Arizona business leadership can make a good start on this crucial task.
6. The Arizona economy is nicely diversified (the major key to a state's ability to ride out a recession), and the conversion from a dependency on copper mining has shifted to increases in mid and "high tech" manufacturing and high end services—financial, legal, business and technical, to name but four. However, there are still too many jobs that pay very little. For every job the state generates for a computer programmer, it generates about 12 jobs for cashiers. Increasingly, these poorly paid service workers—hotel and personal maids, janitors, security guards and clerks—will not be able to live in the communities where they work, which can create major social tensions.
7. Arizona's minority populations are now forty percent of the small children in Arizona. The state must make sure that every child gets a good education and a chance at a good job. If forty percent of Arizona's youth get a bad start and cannot contribute their best to the state's economy, the lives of every state resident will be diminished. This is not liberalism but pragmatism—both liberals and conservatives can agree on the necessity of maximizing educational benefits in order to increase the state's economic potential.